United States Patent [19]

DiPiazza et al.

[54] **ADAPTIVE THRESHOLDING SCHEME FOR OPTICALLY-BASED TOUCH SCREENS**

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[57] **ABSTRACT**

The sensitivity of an optically-based touch screen is substantially improved by adaptively establishing the detection threshold based on the peak trapped light measured over a number of frames on the screen being painted. In accordance with one feature of the invention, the peak trapped light from a target area painted on the screen is compared with a priorly established threshold as a way of determining that a target area is being touched by the user. In accordance with another feature of the invention, the threshold is modified in a way that compensates for possible erroneous touch indications due, for example, to bright spots on the screen.

11 Claims, 5 Drawing Figures